





Digitized by the Internet Archive
in 2012 with funding from
Lyrasis Members and Sloan Foundation

<http://archive.org/details/manualforvisuala00carm>

MANUAL
FOR
VISUAL ASSESSMENT
KIT

by

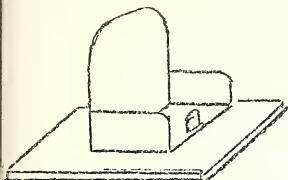
Carmella Ficociello, M.Ed.

Educational Consultant

South Central Regional Center for
Services to Deaf-Blind Children

June, 1974

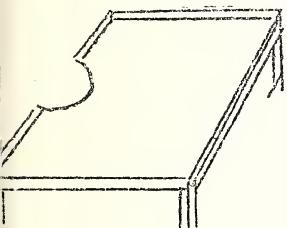
FLOOR CHAIR



Measurements: Small size:		Larger size:
Width back of seat	7 $\frac{1}{2}$ "	10"
Width front of seat	9"	12"
Depth of seat	8"	10"
Height of arms	6 $\frac{1}{2}$ "	7"
Height of back	13"	15"
Floor base	19" x 23"	20" x 24"

Materials: 3/4" plywood. Large dowel (3-4") or can to spread legs if necessary. Dowel can be placed in different holes for different children. For an individual child, seat child with hips back in seat, spread legs and mark where to place dowel.

TABLE FOR FLOOR CHAIR



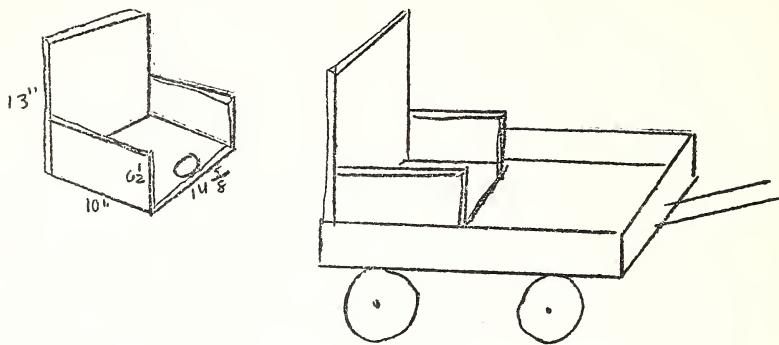
Measurements: Approximately 25" x 25". Cut-out 10" wide, 7" deep or to fit child. Height varied for individual child--8" for this group. Slightly raised edge will help keep toys on tray.

Materials: 3/4" plywood. 1/4" strip for edge. 2" x 2" or 2" x 4" for table legs.

Purpose: Enables child to sit on floor with other children when sitting balance is inadequate without support or with legs in front. The table enables use of puzzles, etc. while sitting on floor. A smaller base 14" wide and 16-18" long would make it possible to place seat in wagon and be used for playground activities like the sandbox.

Meyer Children's Rehabilitation Institute
Early Education Program
Nancy Fieber RPT

WAGON SEAT



Measurements: Width no larger than 14 5/8" preferably slightly smaller, such as 10" or 12" for smaller children.

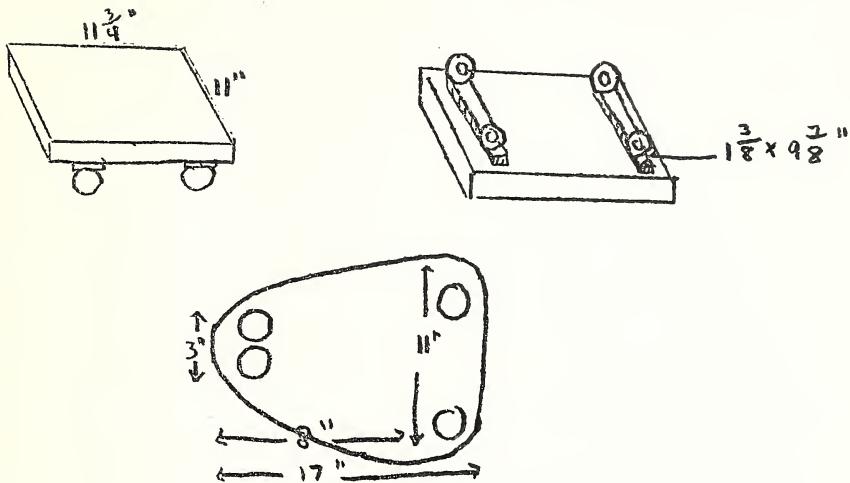
Dowel should be removable ~ it should be about 3" high and 3-4" across.

It should be removable with a peg to insert in a choice of holes in the front of the seat.

Purpose: This chair seat is to be used in a wagon for children who do not sit well alone, especially when pulled in wagon. The dowel may be used to help keep seat way back in chair and legs apart so that child does not slide. The seat can also be lifted out of wagon to assist child to sit in sandbox or to play in grass.

Meyer Children's Rehabilitation Institute
Early Education Program
Nancy Fieber RPT

SCOOTER BOARDS

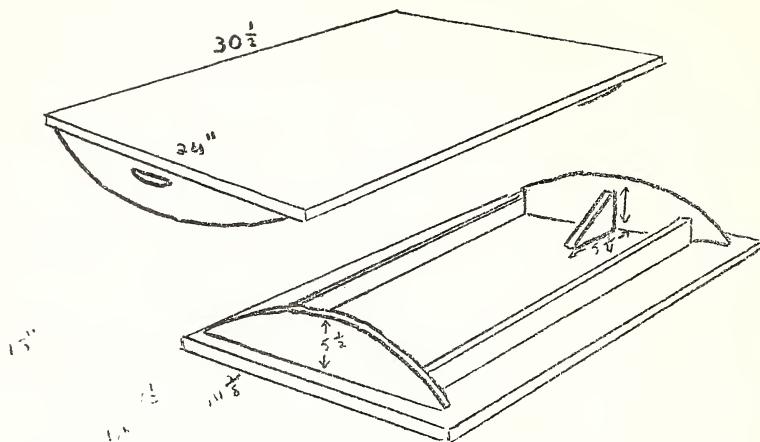


Materials: 3/4" plywood; 4 casters that turn freely in all directions.

Purpose: To provide sensory experiences involving movement of body in a number of positions. May also be used in developing specific prone supporting or balance skills in several positions. Used in perceptual training in developing spatial and directional concepts also.

Meyer Children's Rehabilitation Institute
 Early Education Program
 Nancy Fieber RPT

ROCKING BOARD



Measurements: $30\frac{1}{2}$ " x 24 " top; rocker $23\frac{1}{2}$ " length x $5\frac{1}{2}$ " height; triangular brace $5\frac{1}{4}$ ' on 2 sides; cross braces $26\frac{7}{8}$ " long x $3\frac{3}{4}$ " high.

Materials: $3/4$ " plywood.

A handle cutout or attached at one end helps in carrying.

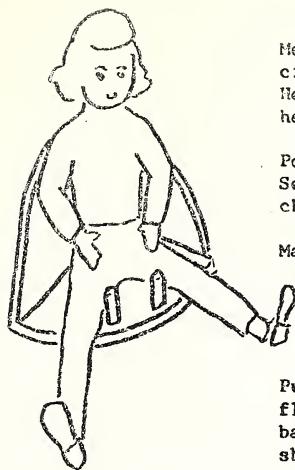
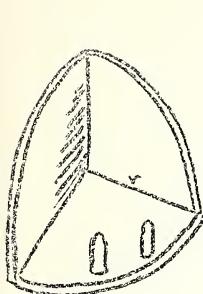
Round corners to avoid injuries.

Corrugated rubber or plastic matting may be attached to keep board from being too slippery when used to stand on. Foam rubber with plastic oilcloth covering may be attached if you need to wipe it clean. Carpet scraps are also good covering.

Purpose: To provide sensory experiences necessary for development of body scheme and prerequisite for development of laterality. To develop balance skills in a number of positions. May be used in lying, sitting, all-fours, kneeling, and standing.

Moyer Children's Rehabilitation Institute
Early Education Program
Nancy Fieber RPT

TRIANGLE FLOOR CHAIR



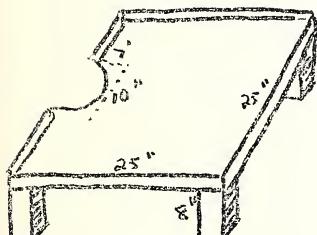
Measurements: Seat is quarter of circle, with _____ radius.
Height of back should be shoulder height _____

Pegs are placed to keep legs spread.
Several holes may be drilled to change position for different children.

Materials: 3/4" plywood. Doweling 1 $\frac{1}{4}$ " or greater. Pad with foam rubber and vinyl for indoor use. Put a drawer handle on back or cut-out for easy carrying.

Purpose: Enables child to sit on floor with other children when sitting balance in inadequate. Helps keep shoulders forward.

TABLE FOR FLOOR CHAIRS



Measurements: Approximately 25" x 25". Cut out may be about 10" wide and 7" deep. Height may vary for individual children's size, but 8" high suggested for this group. Slightly raised edge will help to keep toys on tray.

Purpose: To enable play at table while sitting with legs out straight or spread in front. Table may be used with several kinds of floor seats, or alone to encourage child to sit with legs in front.

Meyer Children's Rehabilitation Institute
Early Education Program
Nancy Fieber RPT

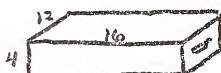
NEST OF BENCHES



Materials and construction:
3/4" Plywood
Handgrip slots at ends
Cut out long sides of two larger
so can also be used for mat table.



Color: Primary colors red, blue, yellow, orange or white for visual contrasts.

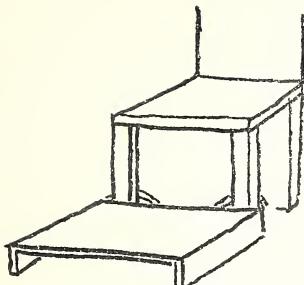


Use: Sit on, mat table, stand on, jumping, and pre-stair climbing.



Meyer Children's Rehabilitation Inst.
Early Education Program
Nancy Fieber, RPT

WOODEN BENCHES ATTACHABLE TO CHAIRS



Measurements: 18" x 9" with several heights —
2", 3", 4", 6"

Webbing straps on back should be long enough
to allow for chair legs from 13 $\frac{1}{4}$ to 16 $\frac{1}{2}$ in. wide.

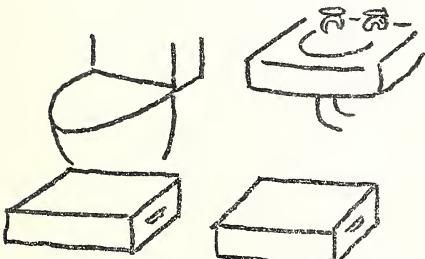


Webbing straps.

Suggested materials: 3/4" plywood, webbing.

Purpose: To give child with dangling feet more secure sitting balance needed for best use of hands in fine skills, and to avoid deformity of the ankles in some children.

WOODEN BENCHES FOR BATHROOM OR CLASSROOM



Measurements: 10" x 14" approximately.
6" height for toilets, 8" height for sinks.

Materials: 3/4" plywood. Slots for handgrip to carry.

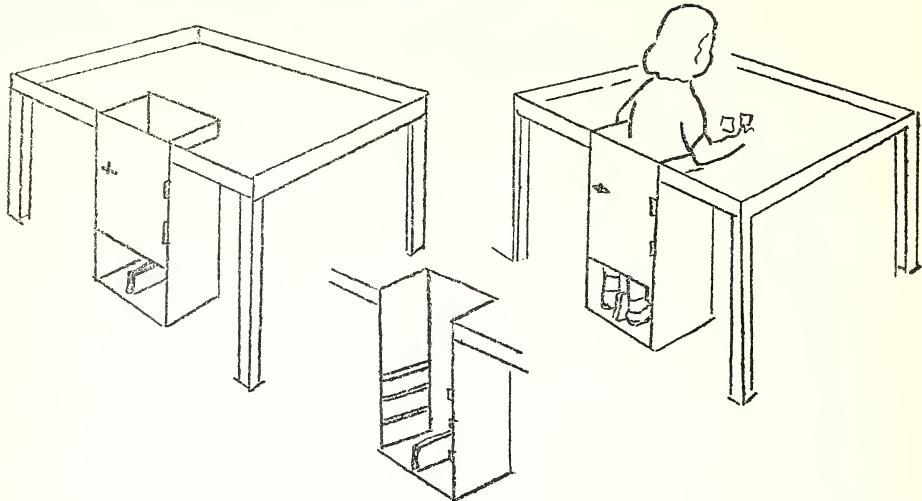
Purpose: To assist in learning self-help skills. Child will feel more secure with feet supported. Child may often be assisted to step up to seat rather than be lifted.

Benches also may be used in practicing sitting balance in classroom.

Mayer Children's Rehabilitation Institute
Early Education Program
Nancy Fieber RPT

STANDING TABLE

CHIMNEY TYPE



Size: Height of chimney should be mid-chest height.

Height of table should be elbow height.

Allow several inches width and depth. We can fill in space if necessary.

Provide for growth A. By making height greater to start and inserting floor piece on horizontals in chimney.

B. One can also later raise whole table by bolting extensions on legs.

Door: Sliding bolt and hinges. Place another bolt lower down if you think child might turn and open bolt. Note open space below to check on feet.

Floor: Note upright to keep feet apart. This can be 5 or 6" high. Your child might not need this. The therapist will advise you.

Edges: Rim around table prevents toys from falling off.

Round off or pad upper edges of chimney.

Purpose: To allow child to practice standing while playing, to combat flexor deformity from too much sitting, and to increase weight-bearing tolerance.

Meyer Children's Rehabilitation Institute
Early Education Program
Nancy Fieber RPT

ACTIVITYPURPOSES

1:00 - 1:15 Children are engaged in free play and various tablework activities. They are free to choose an activity at this time. The occupational therapist has spent time with the group working on various fine hand skills which will be exhibited during this time in puzzles and other tablework they do. All are required to put away each activity before choosing another.

1:15 - 1:30 Obstacle course. Children will put away equipment and each bring a chair to form a line. Teacher will go through the obstacle course first as a demonstration for children to see. Then each must raise hand for a turn. Course will include steps, climbing, hopping, jumping from step, stepping through ladder, crawling, and a "ride" at the end. They are praised through out the course as they complete various parts.

Fine hand skills development.
Eye-hand coordination.
Task completion.
Decision making.
Visual motor perception.
Activities may include: color matching, shape recognition and matching, sequencing movement motor planning.

Development of motor skills including: hopping, jumping, climbing, balance, crawling. Imitative motor planning development. Sequencing movement through space. Body perception development. Short-term memory.

Demonstration Nursery #3

Teacher: Bonnie Smith
Children: Brenda Bobby Dirk
 Scott Lonnie

<u>ACTIVITY</u>	<u>PURPOSE</u>
10:00 Juice and snack.	A. Give the child an opportunity to develop self-help skills. B. Encourage the child to use language. C. Gives the child an opportunity to follow a daily routine. D. Encourages the child to develop socially.

Goals used in prescriptive teaching:

self-help skills	body perception
fine-hand skills	personal-social
upright posture	memory and general information
expressive and receptive language	

Examples of specific prescription would be:

1. Lonnie's prescription is to make eye contact and indicate his desire for juice and cookies and place cup and napkin the garbage.
2. Bobby prescription is to say "ba" for cookie and juice and remain seated during snacktime, eating his cookie and drinking his juice--then throwing his cup and napkin away.
3. Scott's prescription is to make the eat and drink signs then remain seated until juice time is over. Then throw his cup and napkin in the garbage.

10:15 Obstacle course

A. Stepping stones	A. Coordination of visual judgments of space and distance with balance and agility, awareness of direction related to sides of body. Helps build impulse control.
B. Up and down stairs	B. Develops one-leg balance, visual judgments involving space and coordination with feet. Concepts of up and down.
C. Rocking board	C. Can improve balance reactions and some sensory aspects of body image. The child must be aware of balance and use it voluntarily. Learns how to use sides of body together. Imitation.

10:30 Big ball activity

- A. Develops child's protection for falling.
- B. Give the child an opportunity to develop body perception and sensory input.
- C. Enjoyment of movement through space.

10:45 Shaving cream

- A. Develop self-help skills.
- B. Encourage use of fine and gross motor movements.
- C. Encourage tactile awareness.
- D. Encourage body perception.

ACTIVITYPURPOSES

10:00 - 10:15 Children go from mat to table for various tablework activities. They are encouraged to move to their chairs by themselves as much as possible. The physical therapist has advised us regarding each child's techniques for moving and how to encourage and promote the best methods. We are also advised as the best seating for each child. Several children will remain on the mat at this time since they have better use of their hands in a lying position.

Development of locomotor skills.
Development of fine-hand skills.
Eye-hand coordination.
Activities may include: color matching, shape recognition, matching sequencing movements, motor planning.
Language development.
Visual motor development.
Avoid deformities by proper positioning and varying positions.

10:15 - 10:40 Snacktime. Children are required to give some response for juice and cookie, depending on their ability to respond. The occupational therapist has advised us as to feeding techniques and equipment to be used with each child. We ask the children to help in the clean-up as much as possible.

Development of feeding and other self-help skills.
Language development.
Social development.
Proper chair support aids child in using hands and head.

10:40 - 11:00 Children return to mat for coloring activity. They will lie on stomachs or sides for this, some will be propped under chest. The physical therapist has made recommendations for each child when such a position is desired for an activity. Paper is taped to mat and child choose what color he will use. Names are put on when paper is done. At dismissal time we sing "good-bye" and put on coats.

Recognition of colors.
Fine-hand development (scribbling, drawing lines).
Language development.
Name recognition.
Eye-hand coordination.
Visual motor development.

DEVELOPMENT OF FEEDING

- 0 mo. Sucking and swallowing present - reflex present at birth
- 1 mo. Hand to mouth
- 4 mo. Looks at hands
- 5 mo. Hand to mouth with or without a toy.
- 9 mo. Places food in mouth, lateral tongue movements; plays with spoon.
- 12 mo. Holds and transfers to mouth foods requiring chewing.
- 12-15 mo. Grasps spoon
Spoon to mouth, licks spoon, chews food well.
Cup - holds and drinks from with moderate spilling,
may not return cup to table, may toss.
- 18 mo. fill spoon with food; holds and drinks from cup or glass
and returns to table.
- 21-24 mo. spoon consistently reaches mouth right side up.
Handles cup well.
- 2½ years Sucks from plastic straw.
- 3 yrs. Feeds self with little spilling;
pours liquid from pitcher.
- 4 yrs. Eats with fork.
Sucks from paper straw.
- 5 yrs. Cuts with knife.
- 6 yrs. Spreads with knife.

PREREQUISITES FOR FEEDING:

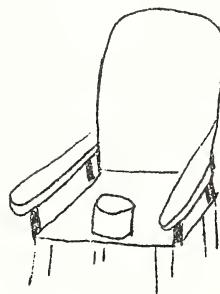
1. Head control
2. Sitting balance
3. Functional upper extremities
4. Adequate body awareness
5. Adequate control of jaw, lips, tongue
6. Adequate bite, chewing, sucking and swallowing
 - coughing

REMEDIAL TECHNIQUES:

1. Head control
2. Sitting balance }
 - Reduce pathological reflex patterns
 - Manually stabilize head
 - Special chairs - Relaxation chair.
 - Hogg chair, high chair with abduction block, foot rest.
3. Adapted feeding utensils
4. Body awareness games
5. Inhibit jaw depression, lip withdrawal, tongue thrust
6. Facilitate chewing, sucking, swallowing

POSITIONING FOR FEEDING:

1. Holding child on lap - Keep hips flexed, shoulders forward with arms close to the side. The best head position is when the head is slightly forward. It is important to inhibit or prevent the total extension of the trunk and hips because jaw thrust and depression and tongue thrust are part of the total extensor pattern. It is also important to keep the head in midline.
2. Infant seat - for small child who cannot tolerate high chair.
3. High Chair - for child who has some trunk and head control. You may have to add an abduction block and pad back and sides of chair. The abduction block can be made of a round or pie shaped piece of wood or a tin can nailed to the chair seat. The purpose of the block is to keep the legs spread apart and prevent the child from extending out of the chair.
4. Straight chair - for the child with good head control and sitting balance. Be sure the feet can reach the floor or some kind of foot support (foot stool, cardboard box, or a foot rest attached to chair).



FEEDING SUGGESTIONS:

I. To Facilitate Voluntary Lip Closure

1. Tactile stimulus - first touch the lip with finger; 2nd touch above the lips with a downward motion; 3rd touch below the lips, and last, touch the cheeks.
2. Temperature - cold (ice cube) Gently ice the lips to facilitate sucking. May also use frozen Koolaid.
3. Taste - sugar, salt, lemon juice will facilitate sucking.

Apply the stimulus just prior to giving your child a bottle or a drink from a cup.

Feeding Suggestions - continued:

II. Sucking

To teach straw sucking, trap liquid in a straw by putting your finger tip over end of straw, while it is in glass. Keeping your finger on the end of the straw, place the other end between the child's lips. You may have to assist him in closing his lips about the straw. As soon as the lips are closed, take your finger away from the end of the straw thus releasing the liquid into the child's mouth. When the child begins sucking, wait for him to suck before releasing the liquid.

For children who have feeding problems and speech problems, sucking is a good activity. After sucking is well established, blowing games are also recommended. (Blowing bubbles, feathers, ping pong balls, etc.)

TO DESENSITIZE THE ORAL AREA (Decrease bite and gag reflexes)

1. With your finger, gently rub the insides of the cheek and the outside of the gums. This will produce saliva, therefore, it is recommended that you close the jaw and place a finger on the upper lip if necessary until your child swallows. Repeat several times before feeding.
2. To decrease gag reflex. Gently apply pressure to the tongue. If the bite reflex is strong, do not use your finger. Instead use a firm rubber spoon or a tongue depressor that has been dipped in a favorite juice. Gently "walk" the spoon or tongue blade back on the tongue about one inch.
3. To decrease tongue thrust. Assist the child in keeping the jaw closed by applying pressure just under the chin.



Introduce foods with different textures:

Marshmallows

Cheese

Orange slices

Cool Whip

Cookies

Crackers

Junior foods

Banana

Jell-o

Bread

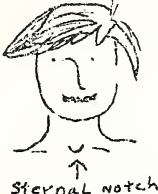
Apple slices

Jelly, honey

Feeding Suggestions: continued -

TO FACILITATE SWALLOWING:

Be sure the lips and jaw are closed. You may have to assist with jaw closure by using your hand. Apply pressure under the tip of the chin to keep the tongue in the mouth. This should cause reflexive swallowing. If this method is not successful, also massage the throat in a downward motion or apply quick icing to the sternal notch.



CHEWING -

1. Start with something semi-solid (cooked vegetables) that the child likes.
2. Try bread or vanilla wafers - these foods are soft and may partially dissolve, thus preventing choking.
3. by putting the piece of food between the teeth at the side of the mouth you may facilitate the chewing reflex by stimulating the inside of the cheek. Alternate sides. This method also appears to reduce tongue thrust.
4. Encourage the child with each bite to chew before swallowing until it becomes a habit. Increase quantity of solid food as strength and voluntary control increase.
5. Foods that are used to encourage chewing are: orange slices, banana, marshmallow, apple slice, cheese, bread, toast, lunch meat, celery, carrots. Chewing gum (you may want to tie a string to it to prevent swallowing or use cheese cloth dipped in sugar water or honey and attached to a string).

SPOON FEEDING:

Use a small spoon with a small amount of food on the spoon. Allow the jaw to open only half way and place the spoon on the top of the front of the tongue, press the tongue down and hold until the lips begin to close. You may have to assist with lip closure by using your finger on the upper lip. Do not scrape food off on the upper teeth. It is important to close the jaw immediately and hold until your child swallows. Pressure on the tongue and jaw closure help coordinate swallowing. Encourage your child to take over voluntarily.

2/14/72
sad

DEVELOPMENT OF FINE HAND SKILLS

- 1 month - - - - hand fisted or partially open.
- 3 months - - - aware of hands.
 - - - reflexive palmar grasp.
- 3-4 months - - holds objects placed in hand.
- 5 months - - - grasps toy held near hand.
- 6 months - - - palmar grasp.
 - - - hands to mid-line.
 - - - eye-hand coordination begins.
 - - - radial palmar grasp (conscious).
- 7 months - - - transfers object from hand to hand.
- 9 months - - - crude pinch-pincer grasp (opposed grasp).
- 12 months - - - deft prehension.
 - - - voluntary release (12-15 mo.)
 - - - two hand manipulation.
- 15 months - - - one hand holds object, the other hand manipulates.
 - - - places pellet in bottle (eye-hand coordination).
 - - - two block tower.
- 18 months - - - turns 2-3 pages at once.
 - - - hand preference may be noted (but not fully developed until 5-6 yrs.)
- 21 months - - - 5-6 block tower (more refined release now possible).
- 24 months - - - string 1" bead
 - - - turns 1 page at a time.
 - - - imitates vertical and horizontal lines with crayon.
- 30 months - - - holds crayon with fingers.
- 36 months - - - strings 1/4" beads
 - - - 10 pellets in bottle in 30 seconds.
- 48 months - - - uses scissors, cuts at random.
 - - - copies cross with crayon.
- 60 months - - - cut with scissors following a line.

DEVELOPMENT OF FINE HAND SKILLS

1. The New Born is characterized by gross body activity and is basically at a reflex level.
2. Tactile stimulation of the new born hand first results in an avoiding response. The adaption of avoidance begins soon after birth and eventually, one year later, leads to prehension.
3. By one month tactile stimulation of the hand results in a traction response. (pulling on an infant's upper extremities induces flexion of all joints.)
4. By two months stimulation between the thumb and index finger causes flexion and adduction of these digits - this is the beginning of the grasp reflex which is usually seen by three months of age.
5. The beginning of skill occurs when the distal end (such as the hand) is free to move because all more proximal joints are stabilized.
6. At four to five months the grasp reflex adapts to crude palmar grasp. Further adaptions occur as tactile stimulation on the medial (ulnar) side of the hand cause some supination and initiates the orienting response which is an instinctive grasp reaction as the child begins to grope after a retreating stimulus. This is the beginning of eye-hand coordination. (6 months).
7. By 8 - 10 months, the child not only gropes after the object but orients it and grasps it.
8. Tactile stimulation to one digit causes flexion of that digit without inducing flexion of all digits.
9. By 12 months, deft prehension of the thumb to the index finger is possible and voluntary prehension and eye-hand coordination continue to increase in skill.
10. Eye-hand skills require fine motor planning and this is the result of sensory-motor integration.

SOURCES:

- 1.) Occupational Therapy, 4th edition, edited by Helen S. Willard, B.A., O.T.R., and Clare S. Spachman, M.S., O.T.R., Chapter 14: Cognitive Perceptual-Motor Behavior, p. 401-479. J.P. Lippincott & Co., 1971.
- 2.) The Origins of Intelligence in Children. By Jean Piaget, International Universities Press, Inc., New York, 1952.

JRK/sad
11-1-71

Meyer Children's Rehabilitation Institute

OCCUPATIONAL THERAPY
HOME PROGRAM

ACTIVITIES TO INCREASE BODY AWARENESS

Adequate body awareness is a prerequisite for good motor planning as well as independent dressing.

1. Mirror Play:

- a. Look at self. Make funny faces.
- b. Watch self move arms, legs, head.
- c. Dress up - look at self in mirror.

2. Sensory Input Games: (tactile, kinesthetic)

- a. Swing in blanket. (up, down, sideways)
- b. Have child sit or lie down while being dragged in blanket (stop, go concept) (also good for sitting balance - if possible encourage child to hold large stuffed toy with both hands.)
- c. Roll in Barrel. (in - out concepts)
Good for sensory input as well as involving motor planning when child is requested to crawl out of barrel.
- d. Playground equipment (sand pile, swings, slides, etc.)
- e. Hide in or under things - (furniture, blanket, boxes, barrel) Involves child's awareness of space, in - out concepts, height - width.

3. Point to Body Parts:

- a. Point to parts on self, doll, another person, pictures of people.
- b. Identify or point to where an adult has touched the child (while the child is looking or when he is not looking.)
- c. Have child imitate putting ring toss rings on different body parts. (ears, arms, finger, nose, foot.)
- d. Wrap yarn around child, have child remove yarn.

4. Imitation Games:

- a. Peek-a-boo, So Big, Patty Cake
- b. Simon Says
- c. Imitate method of tossing ball or bean bag.
- d. Imitate method of waving or moving flags (made of small sticks and paper or felt.)

BIBLIOGRAPHY

Occupational Therapy - Physical Therapy Workshop, March 9-10, 1972.
Meyer Children's Rehabilitation Institute, Omaha, Nebraska.

"The Role of the Occupational Therapist and Physical Therapy in Management of the Deaf-Blind Child."

An extensive bibliography is available from the Mountain-Plains Regional Center for Services to Deaf-Blind Children, 1346 Lincoln Street, Denver, Colorado. The following list includes several references from this bibliography as well as others of interest to therapists. Several sources are cited under testing which are also valuable in understanding child development and developmental disorders.

- I. Understanding the problems of the multihandicapped child--the deaf-blind child, and the child with sensory handicap and cerebral palsy or mental retardation.

American Pediatric Society and Society for Pediatric Research: Rubella Symposium. American Journal of Diseases of Children, 110: October, 1965. (Entire issue of Rubella)

American Foundation for the Blind: The Pre-School Deaf-Blind Child, New York, 1955.

Ashcraft, Sam: Delineating the possibilities for the multihandicapped child with visual impairment, International Journal for Education of the Blind, 16:527, 1966.

Ayres, A. J.: Development of the body scheme in children. American Journal of Occupational Therapy, 15:99, 1961.

Ayres, A. J.: Tactile functions - their relation to hyperactive and perceptual motor behavior. American Journal of Occupational Therapy, 17:6, 1964.

Ayres, A. J.: Patterns of Perceptual-Motor Dysfunction in Children: A factor Analytic Study. Perceptual-Motor Skills, 20:335, 1965.

Bobath, Karel: The Nature of the Deficit in Cerebral Palsy. Little Club Clinics in Developmental Medicine No. 23, London, William Heinemann, 1966.

Body Image. Conference Proceedings, Cleveland, 1966. Cleveland District of Ohio Occupational Therapy association. P.O. Box 7173, Cleveland, Ohio 44128. (\$3)

Buell, C.: Motor performance of visually handicapped children. J. Exceptional Children, 17:69, 1950.

Cohen, Jerome: The effects of blindness on children's development. Children, 13:23, 1966.

Flavell, John H.: The Developmental Psychology of Jean Piaget. D. Van Nostrand Co., Inc., Princeton, New Jersey.

Illingworth, R. S.: The Development of the Infant and Young Child, Normal and Abnormal. Edinburgh & London, E. & S. Livingstone, Ltd., 1960.

Kopp, Claire, ed.: Readings in Early Development: For Occupational and Physical Therapy Students. Springfield, Thomas, 1971.

Krugman, S.: Rubella - A new light on an old disease. J. Pediatrics, 67:159, 1965.

Leonard, J. A.: Static and Mobile balancing performance of blind adolescent grammar school children. New Outlook for the Blind, 63:65, 1969.

Levine, E. S.: Psychoeducational study of children born deaf following maternal rubella in pregnancy. Am. J. Disease of Children, 81:627, 1951.

Myklebust, H.: The Deaf-Blind Child. Perkins Publication No. 19, Perkins School for the Blind, Watertown, Mass., 1956.

Parmalee, Arthur, Jr.; Fiske, C. E.; and Wright, R. H.: The development of ten children with blindness as a result of retrobulbar fibroplasia. Am. J. of Diseases of Children, 89:198, 1959.

Robbins, Nan and Stenquist, Gertrude: The Deaf-Blind 'Rubella' Child. Perkins Publication No 25, Perkins School for the Blind, Watertown, Mass., Jan, 1967.

Vernon, M.: Characteristics associated with post-rubella deaf children: psychological, educational, and physical. Volta Review, 69:176, 1967.

II. Occupational Therapy - Physical Therapy Testing of the Multihandicapped Child.

Andre-Thomas; Saint-Anne Dargassies; and Chesni, Y.: The Neurological Examination of the Infant. Little Club Clinics in Developmental Medicine No. 1, London, William Heinemann, 1960.

Ayres, A. J.: Southern California Test Battery for Assessment of Perceptual-Motor Dysfunction. Western Psychological Services, 12035 Wilshire Blvd., Los Angeles, California 90025.

Bayley Scales of Infant Development. The Psychological Corporation, 1969.

Egan, D. F., Illingworth, R. S., MacKeith, R. C.: Developmental Screening 0-5 years. Little Club Clinics in Developmental Medicine No. 30, London, William Heinemann, 1969.

Fields, Ruby D.: Physical Abilities of the Mentally Retarded Child. Physical Therapy, 49:38, 1969.

Fiorentino, Mary R.: Reflex Testing Methods for Evaluating CNS Development. Springfield, Thomas, 1963.

Frankenberg, W. K. and Dodds, J. B.: Denver Developmental Screening Test. J. Pediatrics, 71:181, 1967. University of Colorado Medical Center, Denver, Colo.

Frostig, M.; Lefever, W.; and Whittlesey, M.S.: Frostig Developmental Test of Visual Perception. Psychologists Press, Palo Alto, California, or Follett Publishing Co., 1010 West Washington Blvd., Chicago, Ill. 60607.

Gesell Developmental Schedules: The Psychological Corp., New York.

Gesell, Arnold and Amatruda, C. S.: Developmental Diagnosis. New York, Paul B. Hoeber, 1954.

Gesell, Arnold: The First Five Years of Life. New York, Harper Bros., 1940.

Haeussermann, Else: Developmental Potential of Pre-School Children. An Evaluation of Intellectual, Sensory and Emotional Functioning. New York, Grune and Stratton, Inc., 1958.

Illingworth, R. S.: An Introduction to Developmental Assessment in the First Year. Little Clb Clinics in Developmental Medicine No. 3, London, William Heinemann, 1962.

Kephart, N. C., and Roach, E. G.: Purdue Perceptual-Motor Survey. Columbus, Chas. E. Merrill, 1966.

Martin, H. and Filfoyle, E.: Assessment of Perceptual Development. American Journal of Occupational Therapy, 1969.

Milani-Comparetti, A. and Gidoni, E. A.: Routine developmental examination in normal and retarded children. Devel. Med. Child Neuros., 9:631, 1967.

Paine, R. S. and Oppe, T. E.: Neurological Examination of Children. Little Club Clinics in Developmental Medicine No. 20/21, London, Wm. Heinemann, 1966.

Willson, M. Ann: Use of a developmental inventory as a chart of progress. Physical therapy, 49:19, 1969.

Zausmer, Elizabeth: Evaluation of strength and motor development in infants. Physical Therapy Review, 33: Nov.-Dec., 1953.

III. Remedial Management.

Ayres, A. J.: Occupational Therapy for motor disorders resulting from impairment of the central nervous system. Rehabilitation Literature, 21:302, 1960.

Ayres, A. J.: Interrelation of perception, function, and treatment. Physical Therapy, 46:741, 1966.

Barret, E. M.: The importance of early training for the deaf-blind. American Annals of the Deaf, 48:149, 1963.

Bobath, Berta: The very early treatment of cerebral palsy. Developmental Medicine and Child Neurology, 9:373, 1967.

Bobath, K. and Bobath, B.: The facilitation of normal postural reactions and movements in the treatment of cerebral palsy. Physiotherapy, August, 1964.

Cratty, Bryant: Movement and Spatial Awareness in Blind Children and Youth. Springfield, Thomas, 1970.

Cratty, Bryant: Developmental Sequence of Perceptual-Motor Tasks. Educational Activities, Inc., Freeport, N. Y., 1967.

Denhoff, Erie, and Landon, M.: Cerebral dysfunction, a treatment program for young children. Clinical Pediatrics, Vol. 5, No. 6, 1966. Reprint available from Meeting Street School, Providence, R.I. (\$1.50)

Denhoff, Erie: The Pre-School Years. Diagnosis, Treatment, and Planning. Monograph in American Lectures in Cerebral Palsy, ed. by J. D. Russ. Springfield, Thomas, 1967.

Denhoff, Erie and Robinault, Isabel: Cerebral Palsy and Related Disorders, a Developmental Approach to Dysfunction. New York, McGraw-Hill, 1960.

Derham, R. J.: The early management of cerebral palsy. Developmental Medicine and Child Neurology, 9:30, 1967.

Downs, M. P.: Identification and training of the deaf child, birth to one year. Volta Review, 70:154, 1968.

Effects of Pre-School Service for Deaf-Blind Children. Proceedings of the Special Study Institute, Department of Special Education, San Francisco State College, June 16-20, 1969. Edited by Philip H. Hatlen, Associate Professor of Education, Department of Special Education, San Francisco State College.

Egland, George O.: Teaching speech to blind children with cerebral palsy. Cerebral Palsy Review, 1955, p. 12-15.

Esche, Jeanne and Griffin, Carol: A Handbook for Parents of Deaf-Blind Children. Michigan School for the Blind, Lansing, Michigan.

Fenlason, Judith: Occupational therapy program for the developmental habilitation of congenital rubella children. American Journal of Occupational Therapy, 22:522, 1968.

Finnie, Nancie R.: Handling the Young Cerebral Palsied Child at Home. London, Wm. Heinemann, 1968.

Frostig, M. and Horne, D.: Teachers Guide to be used in conjunction with the Frostig Program for the Development of Visual Perception. Chicago, Illinois, Follett, 1964.

Frostig, M.: Move, grow, learn program. Chicago, Follett, 1969.

Hackett, Layne and Jenson, R. G.: A Guide to Movement Exploration. Palo-Alto, California, Peek Publications, 1967.

Kephart, N. C.: Aids to motorie and perceptual training. Bureau for Handicapped Children, State Department of Public Instruction, Madison, Wisconsin, Bull. #4a, 1964 (\$1)

Kephart, N. C.: The Slow Learner in the Classroom, Columbus, Ohio, Merrill, 1960.

Llorens, Lela; Rubins, E. Z.; Braun, J. et al: Cognitive-Perceptual-Motor Functions, a preliminary report on training. American Journal of Occupational therapy, 18:202, 19.

Murphy, T. J.: Teaching orientation and mobility to mentally retarded blind person. Diseases of the Nervous System, 58:285, 1969.

Nunley, Rachel T.: The physical therapist at home with the mentally retarded. Physical Therapy, 47:926, 1967.

Occupational Therapy for the Multiply Handicapped Child. Chicago, 1965. Department of Occupational Therapy, Health Sciences Center, Temple University, Philadelphia, PA (Free)

Pearson, Paul and Williams, Carol Ethun, Ed.: Physical Therapy in Developmental Disorders. Springfield, Thomas, in press.

Perceptual-Motor Dysfunction, Evaluation and Training. Conference, Madison, Wisconsin, 1966. School of Occupational Therapy, University of Wisconsin, 1308 W. Dayton, Madison, Wisconsin 35706.

Robbins, Nan: Educational Beginnings with Deaf-Blind Children. Perkins Publication No. 21, June, 1960. Perkins School for the Blind, Watertown, Mass. 02172.

Root, F. K. and Riley, B. G.: Study of Deaf-Blind Children, a Developmental Plan. New Outlook for the Blind, 54:206, 1966.

Salvin, S. T. and Light, B.: Curricula, practices, instructional supplies and equipment for the multiple-handicapped retarded. Los Angeles, University of Southern California, 1963.

Seelye, W. and Thomas, J. C.: Is mobility feasible with multiply handicapped blind children? Exceptional children, 32:613, 1966.

Seelye, W. and Thomas, J. C.: Is mobility feasible with a blind girl with leg braces and crutches; a deaf-blind girl with a tested IQ of 50; a blind boy with an IQ of 51? New Outlook for the Blind, 60:187, 1966.

Turner, M. and Siegel, I. M.: Physical Therapy for the Blind Child. Physical Therapy, 49:1357, 1967.

Vivian, R.: Tadoma method, a tactal approach to speech and speech reading. Volta Review, 1966.

Walber, D. L.: Practices in Teaching Orientation, Mobility, and Travel. International Journal for the Education of the Blind, 11:56, 1961.

Willard, H. S. and Spackman, C. S., ed.: Occupational Therapy. 4th Edition. Philadelphia, J. B. Lippincott, 1971.

IV. Reinforcement Principles in Rehabilitation

Breland, Marian: Training by Positive Reinforcement. Foundation of Teaching by Positive Reinforcement, Chapter 7; Application of Method, Chapter 8. In Bensberg, G.: Teaching the Mentally Retarded, a Handbook for Ward Personnel. Southern Regional Education Board, Atlanta, 1965.

Foss, B. M.: Operant conditioning in the control of movements. Developmental Medicine and child Neurology, 8:339, 1966.

Kolderie, Mary L.: Behavior Modification in the Treatment of Children with Cerebral Palsy. Physical Therapy, 51:1083, 1971.

Rice, Harold K.; McDaniel, M.W.; and Denney, S. L.: Operant conditioning techniques for use in the physical rehabilitation of the multiply handicapped retarded patient. Physical Therapy, 48:342, 1968.

Trotter, A. B. and Inman, D. A.: The Use of Positive Reinforcement in physical therapy. Physical Therapy, 48:347, 1968.

MOUNTAIN-PLAINS REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Workshop for Occupational & Physical Therapists
March 9-10, 1972

Student Information Sheet

Name: Brenda Birthdate: 10-9-64 Age: 6 years Residential: X

Diagnosis: Hydrocephalus. Spastic cerebral palsy with blindness.

Hearing: Normal. Not a deaf-blind child.

Educational Program: MCRI Classroom #3 a.m. Deaf-Blind
Recreation group p.m.
Child is on individual physical therapy program.

Developmental Checklist--

Speech & Language: Combines three words; verbalizes toilet needs; still echoes part of sentence or last word addressed to her; follows simple commands; identifies or demonstrates use of some simple objects.

Body Perception: Identifies some body parts at 2-3 year level; beginning awareness of position and imitation of posture.

Personal - Social: Responds to voice by attention; cooperates in routine classroom procedures; does not interact in play but defends possessions.

Self-Help Skills: Feeds self with spoon; indicates toilet needs; pulls off shoes and pants but not dressing yet.

Fine-Hand Skills: Puts square pegs in holes; does not string big beads.

Visual-Motor Perception: Square and circle in formboard; nests small boxes; reaches for toy beyond reach.

Gross Motor Skills: Walks one hand held or cruises furniture. Walks alone somewhat propulsively, but needs to learn to use tactile and sound clues and memory of space. Pulls to stand on furniture.

Memory & General Information: Knows new and different teacher, knows some therapists; knows name; does not know edible vs. non-edible items.

MOUNTAIN-PLAINS REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Workshop for Occupational & Physical Therapists
March 9-10, 1972

Student Information Sheet

Name: Scotty N. Birthdate: 1-2-68 Age: 4 years Residential: X

Diagnosis: Rubella Syndrome with congenital heart disease, visual and hearing deficit, and mild spastic diplegia, mild to moderate mental retardation.

Vision: Cataract and neptagnus left eye, no vision; rubella retinopathy right eye, some vision.

Hearing: Bilateral profound sensorineural hearing loss. Amplification on trial basis.

Educational Program: MCRI Classroom #3 a.m. Deaf-Blind
MCRI Classroom #1 p.m. Deaf-Blind

In second year in deaf-blind program. Individual speech therapy three times weekly.

Developmental Checklist--

Speech & Language: No babble or echo or jargon; uses gesturing of signed type and responds to gestures.

Body Perception: Some tactile defensiveness but improving; only beginning identification of a body part on self or doll and beginning imitation of a gross posture.

Personal - Social: Does not respond to a smile by smiling; becoming more aware of classroom routine; beginning make-believe activity; not really interacting with other children.

Self-Help Skills: Cooperates with dressing, takes off and puts on shoes, socks, and pants; buttons large button; does not indicate wet pants or toilet needs; feeds self with spoon, does not straw-suck.

Fine-Hand Skills: Picks up pellet; strings 4" beads; cuts with scissors randomly; builds ten cube tower.

Visual-Motor Perceptual: Draws vertical stroke; makes circle; sorts colors; matches four pictures.

Gross Motor Skills: Needs rail for stairs; rides trike well and uses swings, slides; copies galloping or bilateral jump down.

Memory and General Information: Uses toys appropriately; knows way to bathroom and playground; does not know own clothing.

MOUNTAIN-PLAINS REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Workshop for Occupational & Physical Therapist
March 9-10, 1972

Student Information Sheet

Name: Bobbie B. Birthdate: 12-4-64 Age: 7 years Residential: No

Diagnosis: Probably Rubella Syndrome with congenital heart defect, visual and hearing deficits. Severe mental retardation 3-70--current?

Vision: Cataract of left eye and possible optic nerve damage on right.

Hearing: Severe to profound bilateral loss; moderate to severe with aid. Possible central language deficit.

Educational Program: MCRI Classroom #3 a.m. Deaf-Blind
MCRI Classroom #1 p.m. Deaf-Blind

In second year in deaf-blind program. Previous nursery school and OT group experience - receive speech therapy twice weekly.

Developmental Checklist--

Speech & Language: No babbling, echoing, or meaningful words. Uses signals, gestures, and shows some representational play. Demonstrates use of objects and some ability to classify, match, and differentiate pictures.

Body Perception: Still shows some tactile defensiveness. Imitates two-step gross movement sequences but not selective finger movements. Relates body surfaces to objects and directional movement.

Personal - Social: Poor eye contact, does not smile in response to smile; parallel play and does not share yet; needs external control for group activities.

Self-Help Skills: Four years. Toileting with supervision; slow with dressing skills; feeds self.

Fine-Hand Skills: Four years. Ten-cube tower, cuts randomly, strings $\frac{1}{4}$ " beads, traces.

Visual-Motor Perception: Range to 5 years. Draws square, reassembles circle, copies six-cube bridge.

Gross Motor: Range to 4 years. Stairs without rail; balances one leg 4-8 seconds; cannot walk line; rides trike; simple hopping and jumping; catches ball. A toe-walker.

MOUNTAIN-PLAINS REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Workshop for Occupational & Physical Therapists
March 9-10, 1972

Student Information Sheet

Name: Doug H. Birthdate: 2-4-66 Age: 6 years Residential: X

Diagnosis: Rubella Syndrome with visual and hearing deficit: saw borderline intelligence on non-verbal items with visual perceptual deficits.

Visual: Bilateral cataracts with neptagnus. Glasses.

Hearing: Severe bilateral sensorineural hearing loss.

Educational Program: Omaha Hearing School a.m.
MCRI Classroom #1 p.m. Deaf-Blind
In second year in Deaf-blind program.

Developmental Checklist--

Speech & Language: Does not respond to sound. Babbles, gestures, imitates some sounds.

Body Perception: Five years. Imitates three-step movement sequences and selective finger movements, plans creative movements.

Personal - Social: Cooperates in interactive play; engages in dramatic play.

Self-Help Skills: Dresses but cannot lace or tie shoes; can button; cuts with knife; takes self to toilet.

Fine-Hand Skills: Cuts scissors on line, traces shape on paper; trouble folding paper three times; cannot pick up tiny object with eye covered.

Visual-Motor Perception: Draws cross, square, triangle but cannot print numbers. Cannot imitate six-cube bridge.

Gross Motor: Stairs without rail; hops a few feet; cannot walk line or backward heel to toe; balances one leg ten seconds; cannot bounce and catch ball but catches toss.

Memory & General Information: Identifies own clothes - matches pictures, colors, counts.

MOUNTAIN-PLAINS REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Workshop for Occupational & Physical Therapists
March 9-10, 1972

Student Information Sheet

Name: Lonnie S. Birthdate: 3-16-65 Age: 7 years Residential: X

Diagnosis: Rubella Syndrome with congenital heart defect, visual and hearing deficits, mild spastic diplegia, severe mental retardation.

Vision: Severe visual impairment, congenital cataracts, surgery 1966. Nystagmus tends to turn head to left to maintain eyes in far right position. Light gazes. Brings object within one inch to see it. Trying to get to wear glasses.

Hearing: Bilateral sensorineural hearing loss - moderate.

Educational Program: MCRI Classroom #3 a.m. Deaf-Blind
Recreation group p.m.

In second year in deaf-blind program. Individual speech therapy twice weekly.

Developmental Checklist--

Speech & Language: Does not respond to sound or follow simple commands. No babbling, or echoing, no meaningful vocalization. Does use some motor signals.

Body Perception: Some tactile defensiveness; localize touch and searches; no imitation but beginning awareness of assuming a gross posture on tactile cues. Plays with hands.

Personal - Social: Regards person only momentarily; explores environment but without caution; not cooperative in classroom procedures; does not know own possessions.

Self-Help Skills: Range to 4 years. Puts on shoes, socks, and pullover. Feeds self with spoon or fork. Does not indicate wet pants or toilet needs.

Fine-Hand Skills: Under three years except for a square peep in hole. Unwraps candy.

Visual-Motor Perception: Round form in formboard, stacks three cubes, nests boxes.

Gross Motor: Stairs with rail; jumps down; rides trike and uses play equipment.

Memory & General Information: Looks for toy but does not use appropriately; knows way to bathroom; may not recognize if teacher different.

MOUNTAIN-PLAINS REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Workshop for Occupational & Physical Therapists
March 9-10, 1972

Student Information Sheet

Name: Bobby H. Birthdate: 12-6-65 Age: 6 years Residential: No

Diagnosis: Rubella Syndrome with visual and hearing deficit and congenital heart defect.

Vision: Bilateral cataracts. Glasses

Hearing: Moderate to severe bilateral sensori-neural loss. Hearing aid.

Educational Program: Omaha Hearing School a.m.
MCRI Classroom #1 p.m. Deaf-Blind
In second year deaf-blind program. Individual speech therapy twice weekly.

Developmental Checklist---

Speech and Language: Babbles, says several meaningful words. Gestures and uses some vocalization with gesture. Does not always follow simple commands; demonstrates use of objects; categorizes, and matches some pictures.

Body Perception: Most to 5 years. Imitates two-step sequence, identifies parts, cannot draw head and three other parts.

Personal - Social: Not careful toys; poor at sharing, and taking turns; needs external controls for group activities. Some interactive play.

Self-Help Skills: Dresses except for lacing and tying shoes and small buttons; Feeds self, cuts with knife; takes self to toilet.

Fine-Hand Skills: Cuts scissors on line, cannot fold paper, cannot pick up tiny objects with eye covered; traces shape.

Visual-Motor Perception: Draws cross and squares, reassembles circle, prints a few letters.

Gross Motor: Stairs without rail; hops a few times; balances one leg 4-8 seconds; still needs rotation or hands to get up.

Memory and General Information: Uses toys appropriately; knows own clothes and way to bathroom.

MOUNTAIN-PLAINS REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Workshop for Occupational & Physical Therapists
March 9-10, 1972

Student Information Sheet

Name: Ricky R. Birthdate: 3-25-66 Age: Almost 6 years Residential: X

Diagnosis: Encephalopathy due to prematurity. Visual and hearing deficits. Tentatively borderline range mental retardation.

Vision: Bilateral retro-lental fibroplasia with glaucoma and cataract of right eye. Blind right eye, impaired vision left. Glasses.

Hearing: Probably moderate to severe sensorineural loss bilaterally with possible auditory perceptual disorder.

Educational Program: MCRI Classroom #4 a.m. Hearing and speaking groups
MCRI Classroom #1 p.m. Deaf-blind
In second year in deaf-blind program. Individual speech therapy three times a week.

Developmental Checklist--

Speech & Language: Has several meaningful words, some jargon. Gestures and may vocalize. Follows simple commands, differentiates noisemakers, demonstrates use of objects and classifies.

Body Perception: Five years, some at 6 years. Imitates two-step movement sequences. Draws man incompletely. Knows body surface related to objects in space and directional movements and identifies body parts.

Personal - Social: Ranges to 5 years. Does not share, needs external controls in group, some fighting. Some problems with interactive play.

Self-Help Skills: Five years. Buttons small buttons but cannot tie; takes self to toilet.

Fine-Hand Skills: Cannot pick up tiny objects eyes covered; cuts on line, strings $\frac{1}{4}$ " beads; stacks ten cubes.

Visual-Motor Perception: Five years. Draws cross or squares, reassembles circle or square, matches 12 pictures.

Gross Motor: Ranges to 6 years. Stairs without rail; hops a few times; one leg balance 10 seconds; rotates or uses hands in getting up; and bounces and catches ball.

Memory & General Information: Uses toys appropriately, knows own clothing, way to bathroom, etc.

MOUNTAIN-PLAINS REGIONAL CENTER FOR DEAF-BLIND CHILDREN

Workshop for Occupational & Physical Therapists
March 9-10, 1972

Student Information Sheet

Name: Teri Birthdate: 10-15-67 Age: 4 years Residential: X

Diagnosis: Post-meningitis hearing deficit. Average intellectual functioning.

Vision: Normal. Not a deaf-blind child.

Hearing: Severe to profound bilateral sensorineural impairment. Trial aid.

Educational Program: Omaha Hearing School a.m.

MCM Classroom #1 p.m. Deaf-Blind

Receive individual speech therapy two times a week.

Developmental Checklist--

Speech & Language: Babbles, gestures, verbalizes toilet needs. Demonstrates use of objects, matches pictures, classifies objects.

Body Perception: Imitates gross and selective finger movements; identifies parts; knows body surfaces related to objects and directional movements.

Personal - Social: Interacts with other children, takes turns; shows dramatic play; needs external control for stories and group activities.

Self-Help Skills: Dresses except for lacing, tying, small buttons; feeds self and cuts with knife; uses toilet without supervision.

Fine-Hand Skills: Builds ten-cube tower; picks up minute objects with eye covered. Traces shape on paper; opposes fingers sequentially; cuts scissors randomly; strings 1/4" beads.

Visual-Motor Perception: Draws cross, square; matches pictures.

Gross Motor Skills: not quite at age. One leg balance only 1-3 seconds; needs rail for stairs; cannot walk line; cannot hop nor jump rapidly in place, difficulty catching large ball.

Memory & General Information: Identifies own clothes, knows way to bathroom, matches two colors.

MOUNTAIN-PLAINS REGIONAL CENTER FOR DEAF BLIND CHILDREN

Workshop for Occupational & Physical Therapists
March 9-10, 1972

Student Information Sheet

Name: Phil Birthdate: 6-16-67 Age: 4 years 8 months Residential: No

Diagnosis: Cerebral palsy, right spastic hemiplegia with deafness.
Not a deaf-blind child.

Educational Program: Omaha Hearing School a.m.
MCR Classroom #1 p.m. Deaf-Blind
Receives individual occupational therapy, speech therapy; physical therapy recheck.

Developmental Checklist--

Speech & Language: Babbles, does not echo or say meaningful words; gestures and responds to gestures. Differentiates two sounds by pointing to noisemakers; demonstrates use of objects, classifies and matches pictures.

Body Perception: Knows body surfaces related to objects and directional movement and imitates two-step movement sequence; does not draw head and another body part.

Personal - Social: Responds to voice; takes turns, shares, interacts with other children; plays creatively with toys.

Self-Help Skills: Slow in dressing; feeds self and cuts with knife; toilets with supervision and indicates needs.

Fine-Hand Skills: Cuts scissors randomly, folds paper, strings 4" beads; cannot oppose fingers sequentially or close fist and differentiate thumb.

Visual-Motor Perception: Most to age 4 years but cannot imitate three-block bridge, or draw cross.

Gross Motor Skills: Needs rail for stairs; cannot walk line; can jump bilaterally and gallop; cannot pedal as turns trike; cannot climb jungle gym.

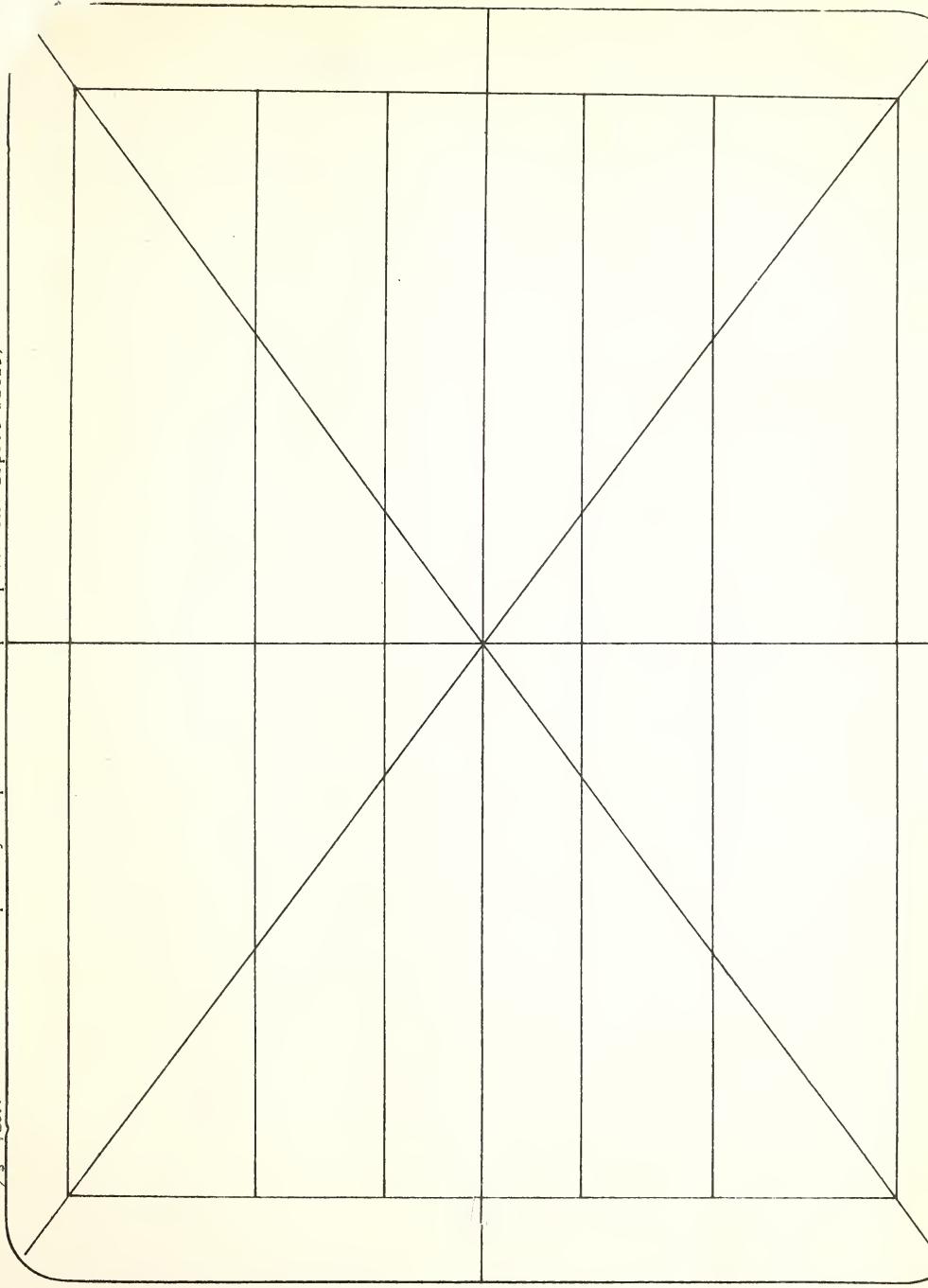
Memory & General Information: Matches colors.

1. Keep it simple

2. Use a sequence

3. Words & symbols should be large

4. Transparency Template (with superimposed 3x4 aspect ratio)



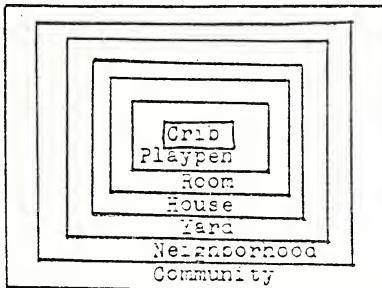
ORIENTATION & MOBILITY SKILLS

WHAT ARE ORIENTATION & MOBILITY SKILLS?

Orientation and mobility skills are skills which enable a person to move independently, safely, and efficiently through the environment. "Orientation" is the ability to determine your position in space in relationship to other objects (i.e. standing on the south side of the street). "Mobility" is the mechanics of getting safely and efficiently from one point to another in the environment (i.e. using a cane to detect curbs so you don't fall off them). Specific categories of orientation and mobility skills include:

- CONCEPT DEVELOPMENT - Understanding of relationships between objects (called "spatial concepts", such as up/down, in/out, on/off, etc.) and recognition of environmental objects and their functions (called "environmental concepts", such as telephone, stove, room, fence, car, etc.).
- SPATIAL ORIENTATION - Ability to judge the distance you have travelled by the length of time it took you to reach the destination, detection of upward and downward slopes in the pavement, ability to make accurate degree turns (i.e. 90 degrees), discrimination between slow and fast speeds of travel, ability to judge whether or not you are travelling in a straight line, and identifying "landmarks" which will help you to know where you are in the environment.
- MOBILITY AIDS & TECHNIQUES - Use of assistive devices and special techniques to move safely and purposefully in the environment. Devices may include scooterboards, hula hoops, lengths of rope, toy shopping carts, large boxes, wheeled riding toys, "long canes" (white canes), dog guides, and electronic object detector instruments. Special techniques used by visually impaired persons include walking comfortably and safely with a fully sighted person, learning to use a long cane or dog guide, and using hands to follow or "trail" a wall.
- PROTECTIVE TECHNIQUES - Use of hands and arms to protect the upper and lower body from potentially hazardous objects in the environment.

In practice, the definition of orientation and mobility skills varies according to the age, physical capabilities, and cognitive abilities of the visually impaired or multihandicapped person. For a very young child, orientation and mobility skills begin to develop with early forms of exploration and sensory awareness in the child's crib. These early skills become increasingly complex and refined as the child matures and his or her environment expands.



The ultimate goal of orientation and mobility training is for each person to reach his or her greatest potential in understanding events in the environment, interacting with objects in the environment, and travelling safely and efficiently through the environment.

WHY IS ASSISTANCE IN DEVELOPING ORIENTATION & MOBILITY SKILLS IMPORTANT FOR VISUALLY IMPAIRED AND MULTIHANDICAPPED BLIND CHILDREN?

Orientation and mobility skills are essential for a child's safety, confidence, and motivation as he or she independently interacts with the environment. Moving through the environment and interpreting environmental events with little or no vision requires a long-term process, beginning at birth, in the areas of memory, reasoning abilities, travel techniques, motor skills, listening skills, and conceptual knowledge. Although much learning in these areas occurs incidentally, highly refined skills require extensive experience, training, and practice.

6/29/2012

26531052

00

HF GROUP - N



